

RESEARCH & EDUCATION FUND

CIDER YEAST COMPARISON



American Homebrewers Association®

Cider Yeast Comparison

Statement of Purpose

The purpose of this experiment was to determine if there were White Labs yeast strains that produced apple ciders that a majority of consumers would prefer over the usually-recommended WLP775 English Cider strain.

Methods and Materials

A total of 7 experienced cider makers were recruited, and each selected a different White Labs yeast strain for their cider. One of the 7 cider makers used the WLP775 English Cider strain as the go-to strain to compare the other strains to.

The apple juice selected for the experiment was Kirkland brand from Costco. This juice is readily available, and produces a clean and pleasant cider, thus a good base for fermentation-related experimentation. A small amount of nutrients in the form of $\frac{1}{2}$ tsp Fermaid-K and $\frac{1}{4}$ tsp DAP were added to each 5 gallon batch.



Aeration/oxygenation was limited to shaking the carboy for one minute, as not all of the cider makers had oxygenation capability. No starters were made, one vial of each strain was pitched into the 5 gallons of apple juice along with the nutrients. The yeast was provided by White Labs, and was picked up at the source to insure maximum freshness and viability.

Fermentations were conducted in the recommended temperature ranges for each of the yeast strains. The WLP862 Cry Havoc strain can be fermented as either a lager or an ale, and was fermented in the ale temp range.

Length of fermentation and other fermentation characteristics such as lag time and krausen production varied somewhat for each strain, with the lager strain requiring the longest fermentation time, probably due to the relatively low fermentation temperature.

After fermentations were complete, each cider was kegged, and carbonated to the same level. The finished ciders were then transferred to growlers and transported to the judging site. The ciders were approximately one month old at time of judging.

Judging was performed blind, by a panel of 10 experienced judges, none of whom had made any of the ciders. In addition, the 7 cider makers also ranked the ciders in a blind tasting, in a separate area where they would not be influenced by the judges.

Approximately 2 weeks after the judging, all 7 ciders were made available for the general public to taste side-by-side at the White Labs tasting room in San Diego. 45 ballots were collected from this event.

Results

In all tastings, the WLP775 English Cider strain did not come out on top in terms of consumer preference. This may reflect a regional preference for sweeter ciders. All of the strains except WLP002 English Ale were able to fully attenuate the apple juice. The strains and their rankings are shown below.

Yeast Strain	Lag Time	Ferm. Temp. (°f)	Judges Rank	Cider Makers Rank	Public Rank	Overall Rank
WPL775 English Cider	10 hrs	65-67	3 tie	4	4	4
WLP002 English Ale	6 hrs	74-76	2	1	1	1
WLP028 Edinburgh Ale	12 hrs	68-70	1	2	3	2
WLP810 San Fran Lager	8 hrs	59-61	7	7	7	7
WLP500 Trappist Ale	8 hrs	68-70	5	6	5	5
WLP575 Belgian Ale Blend	12 hrs	68-74	6	5	6	6
WLP862 Cry Havoc	12 hrs	68-70	3 tie	3	2	3

Related Information

Of interest is that with 10 experienced judges all tasting the same ciders at the same time, the comments for Bouquet/Aroma and Flavor would be so different from judge to judge. I suspect that those who have entered homebrew competitions and read their score sheets can relate to this. Here are a few selected comments for each strain. Remember that there are conflicting comments in most cases.

WLP002 English Ale – “Crisp apple aroma. Clean fermentation character. Low esters, low phenols. Showcases apple aroma.” “Very light straw color, slight haze.” “Sweet apple, finishes a bit sweet. Balance towards sweetness over acid. Med. body, petillant carb, medium alcohol, very crisp finish.”

WLP028 Edinburgh Ale - “Crisp apple aroma with a light fruity ester – flowery like aromas. Very pleasant.” “Very clear, very pale gold.” “Very low sweetness, tart apple, moderate complexity, medium acid.”

WLP862 Cry Havoc - "Medium apple aroma with a light flowery character. Light citrusy character. No phenols, no off aromas." "Very clear, pinkish tinge." "Extremely dry, some apple character, wine-like (Sauvingione Blanc)."

WPL775 English Cider - "Very subdued sweetness and apple." "Pale gold, slightly cloudy." "Tangy, but lacks some apple notes. Med-high acidity, tannic."

WLP500 Trappist Ale - "Very low apple aroma notes with a distinct spicy (almost 'Belgian') note." "Very pale straw, good clarity." "Quite tart, quite dry, distinct apple flavor notes."

WLP575 Belgian Ale Blend - "Little spice, esters, very fruity. Too much esters that it almost smells solventy." "Very clear, very pale gold." "Very dry, low to moderate sweetness, tastes bigger in the alcohol, moderate carbonation, sweetness and bitterness linger into aftertaste."

WLP810 San Fran Lager – "Medium sulphury notes. Light 'yeasty' champagne aroma. As it warms, sulphur becomes unpleasant." "Clear, pale gold, good carbonation. Darker than other versions." "Quite dry and fairly tart. Low indistinct fruitiness. Sulphur is off-putting."

Discussion and Conclusion

I would like to extend thanks to the cider makers, the judges and steward, the people who took the time to rank the ciders, and White Labs for making this a fun learning experience. I suspect there will be some cider makers who will be giving some different yeast strains a try in their ciders, and maybe a few people will give cider making a try that have not done it in the past.

After concluding this experiment, it is obvious that there are many yeast strains suitable for fermenting ciders. I would encourage current and future cider makers to take what you can from this experiment, and add to it by trying different yeast strains, letting others know how your cider turned out, and what your plans are for future fermentations. For me, I'm thinking WLP028 for my next batch of Apple Pie Cider.

Cheers!

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